METAL-CERAMIC CIRCUIT BOARD AND MANUFACTURING METHOD THEREOF

ABSTRACT OF THE DISCLOSURE

A metal-ceramic circuit board is characterized by being constituted by bonding on a base plate of aluminum or aluminum alloy at least one of ceramic substrate boards having a conductive metal member for an electronic circuit. A method of manufacturing a metal-ceramic circuit board is characterized by comprising the steps of melting aluminum or aluminum alloy in a vacuum or inert gas atmosphere to form a molten metal, contacting one surface of a ceramic substrate board directly with the molten metal in a vacuum or inert gas atmosphere, cooling the molten metal and the ceramic substrate board to form a base plate of aluminum or aluminum alloy, which is bonded directly on the ceramic substrate board without forming any oxidizing film therebetween and bonding a conductive metal member for an electronic circuit on the ceramic substrate board by using a brazing material. The base plate has a proof stress not higher than 320 (MPa) and a thickness not smaller than 1mm.